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10/575,586	04/11/2006	Udo Van Stevendaal	DE030349 US1	9550

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EXAMINER	
CORBETT, JOHN M	
ART UNIT	**PAPER NUMBER**
2882	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,586	VAN STEVENDAAL ET AL.	
	Examiner	**Art Unit**	
	JOHN M. CORBETT	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _30 December 2008_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-13_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-13_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _11 April 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1 December 2008 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With regards to claim 13, the claim is directed to a judicial exception; as such, pursuant to the Interim Guidelines on the Patent Eligible Subject Matter (MPEP 2106), the claims must have either physical transformation and/or a useful, concrete and tangible result. The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. The step of merely performing a backprojection is not sufficient to constitute a tangible result, since the outcome of the subjecting step has not been used in a disclosed practical application nor made available in

such a manner that its usefulness in a disclosed practical application can be realized. As such, the subject matter of the claims is not patent eligible.

An example, which would make the subject matter of the instant claim 13 statutory, would be to include a step of displaying a reconstructed image or outputting a material discrimination.

With regards to claim 13, the claim is drawn to a computer program per se. A computer program per se is a set of abstract instructions. Therefore, a computer program is not a physical thing (product) nor a process as they are not "acts" being performed. As such, these claims are not directed to one of the statutory categories of the invention (See MPEP 2106.01), but directed to nonstatutory functional descriptive material.

An example that would make the instant claims statutory would be to claim ***a computer readable medium encoded with a computer program*** which, when implemented on the data processor, instructs the data processor to perform the desired method steps. Hence, the claims would be directed to statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harding (US 6,470,067) in view of Harding et al. (US 4,754,469) and Van Stevendaal et al. ("Filtered Back-Projection Reconstruction Technique for Coherent-Scatter Computed Tomography", 15 May 2003, Medical Imaging 2003: Image Processing, SPIE Volume 5032, pages 1810-1819).

With respect to claim 1, Harding ('067) discloses a data processing device (10) for performing a reconstruction of Coherent Scatter Computer Tomography (CSCT) data (Title and Abstract), the data processing device comprising:

a detector (16) comprising an energy resolving (Col. 4, lines 35-38) detector element (161) positioned offset from a primary radiation path (Col.4, lines 5-10), the energy resolving detector element is configured to acquire a spectrum (Col. 1, lines 27-38, Col. 4, lines 17-24 and Col. 4, lines 30-38);

a memory for storing the CSCT data (computer 10 has memory); and

a data processor for performing a filtered back-projection (Col. 5, lines 4-10), the data processor is adapted to perform the following operations:

determining a wave-vector transfer by using the spectrum (Col. 2, lines 20-23 and Col. 4, lines 17-38);

determining a reconstruction volume using the wave-vector transfer and data from a detector element (Col. 5, lines 4-10 to include item 160), a dimension of the reconstruction volume is determined by the wave-vector transfer (Col. 1, lines 24-29, Col. 1, lines 31-37 and Col. 4, lines 17-38 and Figures 1-3, momentum transfer determined for view and fan angle which is then reconstructed into voxels) and

determining a reconstruction volume using data from the detector (Col. 5, lines 4-10, reconstruction of attenuation values of primary beam).

Harding (‘067) fails to explicitly disclose a scintillator detector element.

Harding (‘067) further fails to disclose the wave-vector transfer represents curved lines in the reconstruction volume; and

performing a filtered back-projection along the curved lines in the reconstruction volume.

Harding et al. (‘469) teaches a scintillator detector element (Col. 3, lines 12-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Harding (‘067) to include the scintillator of Harding et al. (‘469), since the Examiner finds that the prior art reference (i.e., Harding (‘067)) contains a device upon which the claimed invention can be seen as an improvement and which differs from the prior art by a known technique (i.e. Harding et al., energy resolving by scintillator detectors), thus the Examiner finds that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved device.

Van Stevendaal et al. teaches the wave-vector transfer represents curved lines in the reconstruction volume (Page 2468, Col. 2, lines 26-28 and Figures 3 and 4) and

performing a filtered back-projection along the curved lines in the reconstruction volume (Title and Abstract, lines 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the device of Harding (‘067) as modified above the curved filtered back-projection of Van Stevendaal et al., since a person would have been motivated to make such a

modification to improve imaging by reducing computational time and by performing sub-field-of-view reconstruction (Abstract, lines 8-11) as taught by Van Stevendaal et al.

With respect to claim 2, Harding further discloses the spectrum is acquired during a circular acquisition where a source of radiation is rotated around an object of interest in a rotation plane (Col. 3, lines 65-67 and Figure 1).

With respect to claim 3, Harding further discloses the reconstruction volume is furthermore determined by two linear independent vectors of the rotation plane (to include view angle and fan angle of scattering points).

With respect to claim 4, Harding as modified above suggests the device as recited above. Harding further discloses the energy resolving detector is arranged such that it measures a scatter radiation scattered by an object of interest (Col. 4, lines 1-4 and Figures 1 and 3); and

the CSCT data further comprises information with respect to a primary radiation attenuated by the object of interest (Col. 4, lines 1-4).

Harding fails to explicitly disclose a preprocessing is performed to correct for an attenuation contribution.

Van Stevendaal et al. further teaches a preprocessing is performed to correct for an attenuation contribution (Page 2468, Section II B. Preprocessing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the device of Harding as modified above the attenuation correction of

Van Stevendaal et al., since a person would have been motivated to make such a modification to improve image quality by correcting for the intensity residual primary beam at a scattering point to be reconstructed that is essential for applying the reconstruction algorithm (Page 2466, Col. 1, lines 10-12) as taught by Van Stevendaal et al.

With respect to claim 5, Harding ('067) discloses a Coherent Scatter Computer Tomography (CSCT) (Title and Abstract) apparatus (Figure 1) for examination of an object of interest (Col. 2, lines 65-66, item 13), the CSCT apparatus comprising:

a detector unit (16) with an x-ray source (s);

a scatter radiation detector (161);

the detector unit is rotatable (Figure 1) around a rotational axis (14) extending through an examination area (13) for receiving the object of interest;

the x-ray source generates a fan-shaped x-ray beam (41) adapted to penetrate the object of interest in the examination area in a slice plane (Figure 1);

the scatter radiation detector is arranged at the detector unit opposite to the x-ray source (Figure 1) with an offset with respect to the slice plane in a direction parallel to the rotational axis (Figures 1 and 3) and the detector (160) is arranged at the detector unit opposite to the x-ray source in the slice plane (Figures 1 and 3);

the scatter radiation detector includes a first detector line with a plurality of first detector elements arranged in a line (Figure 1);

the plurality of first detector elements are energy-resolving detector elements (Col. 3, lines 17-38);

a data processor (10) configured to perform a filtered back-projection (Col. 5, lines 4-10) on readouts of detector, the data processor is adapted to perform the following operations:

determining a wave-vector transfer by using the first readouts (Col. 2, lines 20-23 and Col. 4, lines 17-38);

determining a reconstruction volume using the wave-vector transfer (Col. 1, lines 24-29, Col. 1, lines 31-37 and Col. 4, lines 17-38 and Figures 1-3, momentum transfer determined for view and fan angles which is then reconstructed into voxels) and

determining a reconstruction volume using data from the detector (Col. 5, lines 4-10, reconstruction of attenuation values of primary beam).

Harding ('067) fails to explicitly disclose a scintillator detector.

Harding ('067) further fails to disclose for performing a filtered back-projection on first readouts of the scatter radiation detector,

the wave-vector transfer represents curved lines in the reconstruction volume; and

performing a filtered back-projection along the curved lines in the reconstruction volume.

Harding et al. ('469) teaches a scintillator detector (Col. 3, lines 12-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Harding ('067) to include the scintillator of Harding et al. ('469), since the Examiner finds that the prior art reference (i.e., Harding ('067)) contains a device upon which the claimed invention can be seen as an improvement and which differs from the prior art by a known technique (i.e. Harding et al., energy resolving by scintillator detectors), thus the Examiner finds that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved device.

Van Stevendaal et al. teaches for performing a filtered back-projection on first readouts of the scatter radiation detector (Abstract),

the wave-vector transfer represents curved lines in the reconstruction volume (Page 2468, Col. 2, lines 26-28 and Figures 3 and 4) and

performing a filtered back-projection along the curved lines in the reconstruction volume (Title and Abstract, lines 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the device of Harding ('067) as modified above the curved filtered back-projection of Van Stevendaal et al., since a person would have been motivated to make such a modification to improve imaging by reducing computational time and by performing sub-field-of-view reconstruction (Abstract, lines 8-11) as taught by Van Stevendaal et al.

With respect to claim 6, Harding ('067) as modified above suggests the apparatus as recited above.

Harding ('067) further discloses the scatter radiation detector (elements 161) is arranged at the detector unit opposite to the x-ray source parallel to the slice plane and out of the slice plane with such an offset along the rotational axis such that the scatter radiation detector is arranged for receiving a scatter radiation scattered from the object of interest (Figures 1 and 3), the detector (elements 160) is configured to receive a primary radiation detector (Figure 1 and 3);

the primary radiation detector is arranged at the detector unit opposite to the x-ray source in the slice plane for receiving a primary radiation attenuated by the object of interest (Col. 4, lines 1-4 and Figure 1) and a data processor (10).

Harding et al. ('469) further teaches a scintillator detector (Col. 3, lines 12-35).

Harding ('067) fails to explicitly teach configured to perform a preprocessing to correct for an attenuation contribution by using second readouts of the primary radiation detector.

Van Stevendaal et al. teaches performs a preprocessing to correct for an attenuation contribution by using second readouts of the primary radiation detector (Page 2468, Section II B. Preprocessing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the apparatus of Harding ('067) as modified above the attenuation correction of Van Stevendaal et al., since a person would have been motivated to make such a modification to improve image quality by correcting for the intensity residual primary beam at a scattering point to be reconstructed that is essential for applying the reconstruction algorithm (Page 2466, Col. 1, lines 10-12) as taught by Van Stevendaal et al.

With respect to claim 7, Harding ('067) further discloses the reconstruction volume is furthermore determined by two linear independent vectors of the rotation plane and a wave-vector transfer dimension (Col. 1, lines 24-29, Col. 1, lines 31-37 and Col. 4, lines 17-38 and Figures 1-3, momentum transfer determined for view and fan angle).

With respect to claim 8, Harding ('067) discloses a method of performing a reconstruction of Coherent Scatter Computer Tomography (CSCT) data (Abstract and Title), the CSCT data comprises a spectrum (Col. 1, lines 27-38, Col. 4, lines 17-24 and Col. 4, lines 30-38)

acquired by means of an energy resolving (Col. 4, lines 35-38) detector (16) element (161), the method comprising the acts of:

determining a wave-vector transfer by using a spectrum determined using an energy resolving detector positioned offset from a primary radiation path (Col. 2, lines 20-23 and Col. 4, lines 17-38 and Figures 1 and 3);

determining a reconstruction volume using the wave-vector transfer (Col. 4, lines 5-61 and Figure 4) and data from a detector (160) positioned along the primary radiation path (Col. 5, lines 4-10, reconstruction of attenuation values of primary beam);

rendering the reconstruction volume, a dimension of reconstructed volume is determined by the wave-vector transfer (Col. 1, lines 24-29, Col. 1, lines 31-37, Col. 4, lines 17-38 and Col. 5, lines 4-10 and Figures 1-3, momentum transfer determined for view and fan angle which is then reconstructed into voxels).

Harding (‘067) fails to explicitly disclose a scintillator detector.

Harding (‘067) further fails to disclose the wave-vector transfer represents curved lines in the reconstruction volume; and

performing a filtered back-projection along the curved lines in the reconstruction volume.

Harding et al. (‘469) teaches a scintillator detector (Col. 3, lines 12-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Harding (‘067) to include the scintillator of Harding et al. (‘469), since the Examiner finds that the prior art reference (i.e., Harding (‘067)) contains a device upon which the claimed invention can be seen as an improvement and which differs from the prior art by a known technique (i.e. Harding et al., energy resolving by scintillator detectors),

thus the Examiner finds that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved device.

Van Stevendaal et al. teaches the wave-vector transfer represents curved lines in the reconstruction volume (Page 2468, Col. 2, lines 26-28 and Figures 3 and 4) and

performing a filtered back-projection along the curved lines in the reconstruction volume (Title and Abstract, lines 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the device of Harding (‘067) as modified above the curved filtered back-projection of Van Stevendaal et al., since a person would have been motivated to make such a modification to improve imaging by reducing computational time and by performing sub-field-of-view reconstruction (Abstract, lines 8-11) as taught by Van Stevendaal et al.

With respect to claim 9, Harding (‘067) further discloses the spectrum is acquired during a circular acquisition where a source of radiation is rotated around an object of interest in a rotation plane (Col. 3, lines 65-67 and Figure 1).

With respect to claim 10, Harding (‘067) further discloses the reconstruction volume is furthermore determined by two linear independent vectors of the rotation plane (to include view angle and fan angle of scattering points).

With respect to claim 11, Harding (‘067) as modified above suggests the method as recited above. Harding (‘067) further discloses the energy resolving detector is arranged such

that it measures a scatter radiation scattered by an object of interest (Figures 1 and 3), the CSCT data further comprises information with respect to a primary radiation attenuated by the object of interest detected by the detector (Col. 4, lines 1-4).

Harding et al. (‘469) teaches a scintillator (Col. 3, lines 12-35).

Harding (‘067) fails to explicitly disclose wherein a preprocessing is performed to correct for an attenuation contribution.

Van Stevendaal et al. teaches wherein a preprocessing is performed to correct for an attenuation contribution (Page 2468, Section II B. Preprocessing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the method of Harding (‘067) as modified above the attenuation correction of Van Stevendaal et al., since a person would have been motivated to make such a modification to improve image quality by correcting for the intensity residual primary beam at a scattering point to be reconstructed that is essential for applying the reconstruction algorithm (Page 2466, Col. 1, lines 10-12) as taught by Van Stevendaal et al.

With respect to claim 12, Harding (‘067) further discloses the acts of:

energizing an x-ray source (S) such that it generates a fan-shaped x-ray beam (41) which penetrates the object of interest in an examination area in a slice plane (Figures 1 and 3);

performing an integral energy measurement of a scatter radiation by means of the energy resolving detector (Col. 4, lines 34-38, sum of measurements of each energy measured is an integral energy measurement) with a first detector line with a plurality of first energy resolving detector elements arranged in a line;

reading-out the energy measurement from the energy resolving detector (Col. 3, lines 47-53); and

rotating the x-ray source and the energy resolving detector around a rotational axis extending through an examination area containing the object of interest (Col. 3, lines 65-67 and Figure 1).

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harding ('067) in view of Harding et al. ('469), Van Stevendaal et al. and Hsieh (6,529,575).

With respect to claim 13, Harding ('067) discloses a data processor (10) for performing a reconstruction of coherent-scatter computer tomography (CSCT) data (Title and Abstract), the CSCT data comprises a spectrum (Col. 1, lines 27-38, Col. 4, lines 17-24 and Col. 4, lines 30-38) acquired by means of an energy resolving (Col. 4, lines 35-38) detector (16) element (161) positioned offset from a primary radiation path (Figures 1 and 3), the data processor to perform the following operation:

determining a wave-vector transfer by using the spectrum Col. 2, lines 20-23 and Col. 4, lines 17-38);

determining a reconstruction volume using the wave-vector transfer and data from a detector (160) positioned along the primary radiation path (Figure 1-2), a dimension of the reconstruction volume is determined by the wave-vector transfer (Col. 1, lines 24-29, Col. 1, lines 31-37 and Col. 4, lines 17-38 and Figures 1-3, momentum transfer determined for view and fan angle which is then reconstructed into voxels);

determining a reconstruction volume using data from a detector (160) positioned along the primary radiation path (Col. 5, lines 4-10, reconstruction of attenuation values of primary beam);

rendering the reconstruction volume (Col. 5, lines 4-10); and

outputting the reconstruction volume (via 11).

Harding (‘067) fails to explicitly disclose a scintillator detector and a computer readable medium encoded with a computer program when implemented on the data processor, the program instructs the data processor to perform steps.

Harding (‘067) further fails to disclose the wave-vector transfer represents curved lines in the reconstruction volume; and

performing a filtered back-projection along the curved lines in the reconstruction volume.

Harding et al. (‘469) teaches a scintillator detector (Col. 3, lines 12-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the configuration of Harding (‘067) to include the scintillator of Harding et al. (‘469), since the Examiner finds that the prior art reference (i.e., Harding (‘067)) contains a device upon which the claimed invention can be seen as an improvement and which differs from the prior art by a known technique (i.e. Harding et al., energy resolving by scintillator detectors), thus the Examiner finds that one of ordinary skill in the art would have recognized that applying the known technique would have yielded predictable results and resulted in an improved device.

Van Stevendaal et al. teaches the wave-vector transfer represents curved lines in the reconstruction volume (Page 2468, Col. 2, lines 26-28 and Figures 3 and 4) and

performing a filtered back-projection along the curved lines in the reconstruction volume (Title and Abstract, lines 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the configuration of Harding ('067) as modified above the curved filtered back-projection of Van Stevendaal et al., since a person would have been motivated to make such a modification to improve imaging by reducing computational time and by performing sub-field-of-view reconstruction (Abstract, lines 8-11) as taught by Van Stevendaal et al.

Hsieh teaches a computer readable medium encoded with a computer program when implemented on the data processor, the program instructs the data processor to perform steps (Col. 8, line 57 - Col. 9, line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the configuration of Harding ('067) as modified above the computer readable medium of Hsieh, since person would have been motivated to make such a modification to more easily update existing systems to implement the invention (Col. 8, line 66 - Col. 9, line 1) as taught by Hsieh.

Response to Arguments

5. Applicant's arguments filed 1 December 2008 have been fully considered but they are not persuasive.

The Applicant arguments are not persuasive for the reasons set forth by the examiner in the Advisory Action (PTOL-303) mailed 12 December 2008.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. CORBETT whose telephone number is (571)272-8284. The examiner can normally be reached on M-F 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. M. C./
Examiner, Art Unit 2882

/Edward J Glick/
Supervisory Patent Examiner, Art Unit 2882